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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,640	01/24/2006	Tony Lorgcr	5791	2997
26936 7590 11/14/2007 SHOEMAKER AND MATTARE, LTD 10 POST OFFICE ROAD - SUITE 110 SILVER SPRING, MD 20910			EXAMINER BOMAR, THOMAS S	
			ART UNIT 3676	PAPER NUMBER
			MAIL DATE 11/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,640

Applicant(s)

LORGER ET AL.

Examiner

Shane Bomar

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/24/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in the reply filed on October 17, 2007 is acknowledged. Furthermore, the partial traversal on the grounds that Groups II and III should be combined is persuasive; therefore, claims 8-16 are currently pending.

Drawings

2. The drawings are objected to because of the handwritten reference numerals and corrections in Figures 6A-7D. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 1-8, 10, and 14-16 are objected to because of the following informalities:
- a. claims 1-7 should be labeled as (Withdrawn) or they should be canceled since they are non-elected;
 - b. the recitation of "said chuck" in line 4 of claim 8 should be --said drive sub or chuck--;
 - c. the recitation of "the air hammer motor" and "the sample recovery bore" in claim 8 lacks proper antecedent basis;
 - d. the recitation of "said air passages" in line 7 of claim 8 should be --said upper air passages-- for clarity purposes;
 - e. the recitation of "the gauge row" in claim 10 lacks proper antecedent basis;
 - f. the recitation of "the borehole" in claim 14 lacks proper antecedent basis;
 - g. the recitation of "the air hammer motor", "the sample recovery bore", and "the gauge row" in claim 15 lacks proper antecedent basis; and
 - h. the recitation of "the borehole" in claim 16 lacks proper antecedent basis.
- Appropriate correction is required.

Information Disclosure Statement

4. The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and

any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW) system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,407,021 to Kane et al.

Kane et al disclose a downhole hammer drill including: a drive sub 38 mounted on an air hammer drill casing 32; and a reverse circulation drill bit 42 having a bit shank mounted in splined relation to said drive sub and a bit head adapted to extend below said drive sub, the air

hammer motor exhausting down the splines 40/46, an exhaust air passage formed in said bit shank adjacent said bit head and adapted to receive air exhausted at the lower end of the bit shank splines, an upper air passage 80 intersecting said exhaust air passage and directing sample accelerating air from said exhaust air passage up a sample recovery bore 54 of said bit, said bit head having at least one lower air passage 74B therethrough and intersecting said exhaust air passage, said lower air passage having a lower end directing air to the cutting face of the bit through an outlet through the side of the bit head communicating with a channel passing from said outlet to said cutting face 44 (Fig. 1; col. 3, lines 24-52; col. 4, lines 1-28).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kane et al in view of US 20050199429 to Terlet et al.

Regarding claims 10 and 14-16, Kane et al teach the downhole hammer drill of claims 8 and 9; although, it is not specifically taught that there is a gauge row on the bit, or that there is a dynamic seal to the borehole.

Terlet et al teach a hammer drill similar to that of Kane et al. It is further taught that the hammer drill has a gauge row and that the air flow exiting the side of the bit and continuing to the face of the bit creates a dynamic seal to the borehole (Fig. 5; ¶ 0041). Thus, all of the component parts are known in Kane et al and Terlet et al, the only difference is the combination of the "old elements" into a single drill bit. Therefore, it would have been obvious to one having ordinary skill in the art to mount the gauge row on the bit of Kane et al to achieve the predictable results of drilling the hole to gauge diameter.

With respect to claims 11-13, these claims are clearly in the product-by-process form and, as is office practice, product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP 2113 [R-1]. Therefore, as can be seen in Figure 5 of Terlet et al, the carbide buttons are inserted into holes that have been counter bored to accept the buttons, and as can be seen in Figure 1 of Kane et al, the upper and lower air passages air drilled so that they are a continuation of one another and intersect the sample recovery bore 54.

Conclusion

10. The prior art made of record on form 892 and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (In USA or Canada) or 571-272-1000.

/Shane Bomar/
Patent Examiner
Art Unit 3676

November 8, 2007